

REMARKS

Status of the Claims

Claims 30-47, 61, and 62 are pending in the present application. All claims were rejected in the Office Action mailed March 4, 2004. Claims 30, 46, and 61 are currently amended and Claims 39-45 and 62 are cancelled herein. Therefore, Claims 30-38, 46, 47, and 61 are presently under examination. Amendments to the claims are fully supported by the specification, therefore no new matter is added. Applicants respectfully request reconsideration of the rejected claims in view of the Amendment submitted herein and the following remarks.

Telephonic Interview of August 17, 2004

Applicants thank the PTO for conducting the telephonic interview between Applicants' representative, Mr. Wigley, and Examiner Pasterczyk and Supervisory Patent Examiner Bell of the PTO, in which each of the pending rejections was discussed. Particularly, Applicants thank the PTO for responding to various proposed claim amendments presented for discussion.

Rejection of Claims 30-47, 61, and 62 Under the Written Description Requirement of 35 U.S.C. § 112, First Paragraph

Claims 30-47, 61, and 62 were rejected in the March 4, 2004, Office Action under the written description requirement of 35 U.S.C. § 112, first paragraph, as containing subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. It is the position of the U.S. Patent & Trademark Office ("PTO") that unless the term "non-fluorinated" is explicitly stated in the specification, it constitutes new matter.

As discussed in the telephonic interview of August 17, 2004, independent Claims 30, 46, and 61 have been amended herein to delete the term “non-fluorinated”, thereby obviating this rejection. Accordingly, Applicants respectfully request that this rejection under 35 U.S.C. § 112, first paragraph, be withdrawn and these claims be allowed.

Rejection of Claims 30-47, 61, and 62 Under 35 U.S.C. § 112, Second Paragraph

Claims 30-47, 61, and 62. The rejection of Claims 30-47, 61, and 62 under 35 U.S.C. § 112, second paragraph, as being indefinite, was maintained in the March 4, 2004, Office Action. The PTO takes the position that Applicants’ Markush language in Claims 30, 39, 46, 61, and 62 renders them indefinite.

As discussed in the telephonic interview of August 17, 2004, Applicants have amended the Markush language in independent Claims 30, 46, and 61 to remove the “selected from” language, thereby obviating this rejection. Accordingly, Applicants respectfully request that this rejection under 35 U.S.C. § 112, second paragraph, be withdrawn and these claims be allowed.

Claims 37 and 47. The Advisory Action dated May 3, 2004, indicated that Applicants’ amendment (mailed April 20, 2004) of Claims 37 and 47 overcame the rejection of these claims under 35 U.S.C. § 112, second paragraph. Applicants thank Examiner Pasterczyk for the suggested amendments to these claims.

Rejection of Claims 30-47, 61, and 62 Under 35 U.S.C. § 103(a)

Claims 30-47, 61, and 62 were rejected in the Office Action mailed March 4, 2004, under 35 U.S.C. § 103(a), as unpatentable over U.S. Patent No. 4,735,931 to McDaniel et al. (“McDaniel”), in view of U.S. Patent No. 6,245,869 to Debras et al. (“Debras”), U.S. Patent No.

3,947,433 to Witt (“Witt”), and U.S. Patent No. 4,845,176 to Konrad et al. (“Konrad”). As discussed in the telephonic interview of August 17, 2004, Applicants respectfully maintain that no *prima facie* case of obviousness under 35 U.S.C. § 103(a) has been made for at least the reasons that: A) McDaniel, Witt, Konrad, and Debras provide no motivation or suggestion to combine these references such that all the limitations of Applicants’ Claims 30-47, 61, and 62 are rendered obvious; and B) the McDaniel, Witt, Konrad, and Debras references, even when combined, provide no reasonable expectation of success for the Applicants’ claims.

However, to advance the prosecution of this application, Applicants have amended Claims 30 and 61 to recite an alkyl lithium or aryl lithium cocatalyst only. Similarly, Claim 46 recites a dialkyl aluminum alkoxide in combination with an alkyl boron compound, as the only cocatalyst. Further, independent Claims 30, 46, and 61 *all* recite a dual catalyst composition that comprises a Ziegler-Natta catalyst, in addition to the chromium catalyst already recited. Support for this latter amendment is found on page 10, line 16-page 11, line 5, and in Claim 46 as originally filed, therefore this amendment adds no new matter.

Respectfully, Applicants note that U.S. Patent No. 6,245,869 to Debras et al. (“Debras”) discloses a cocatalyst system selected from at least one of an aluminum alkyl and zinc alkyl, neither teaching nor suggesting any of Applicants’ cocatalysts. Thus, Applicants maintain that Debras provides no motivation for its combination with McDaniel, with or without Konrad and Witt, nor does Debras teach or fairly suggest a dual chromium-Ziegler catalyst as claimed in Applicants’ invention.

Applicants also maintain that none of U.S. Patent No. 4,735,931 to McDaniel et al. (“McDaniel”), U.S. Patent No. 3,947,433 to Witt (“Witt”), and U.S. Patent No. 4,845,176 to Konrad et al. (“Konrad”) teach or suggest the Applicants’ claimed invention, either alone or in

combination. Neither McDaniel, Witt, nor Konrad teaches or suggests a dual catalyst composition that further comprises a Ziegler-Natta catalyst, in addition to the chromium catalyst recited in the amended claims.

Further, McDaniel, Witt, and Konrad do not teach or suggest a dual catalyst system that includes an alkyl lithium or aryl lithium compound as the chromium cocatalyst, as recited in Claims 30 and 61. McDaniel, Witt, and Konrad do not teach or suggest a dual catalyst system that includes a dialkyl aluminum alkoxide-alkyl boron combination as the chromium cocatalyst, as recited in Claim 46.

Respectfully, Applicants maintain that McDaniel also does not teach or suggest any cocatalysts as presently claimed. McDaniel states that “[t]he cocatalyst is either a trialkyl boron component or a dialkyl aluminum alkoxide component...” (col. 3, lines 3-4; emphasis added). Indeed, nowhere in the McDaniel specification is the Applicants’ combination of cocatalysts taught or suggested.

Further, Applicants maintain that, regardless of any cocatalysts recited in McDaniel, this reference cannot be combined properly with Witt or Konrad and even if combined, fails to render the pending claims obvious. Both Witt and Konrad require the highest oxidation state, hexavalent Cr(VI)-based catalysts, whereas Applicants’ Claims 30-39, 46, 47, and 61, are directed toward divalent Cr(II) catalysts. Further, given the immeasurable differences between the chemistry of hexavalent Cr(VI) and divalent Cr(II) (*see, for example*: Cotton and Wilkinson, *Advanced Inorganic Chemistry*, 5th Ed, pp. 679-697, Wiley Interscience, 1988), there can be no reasonable expectation of success for Applicants’ claimed invention, even if the PTO picks and chooses from any one reference only so much as will support a given position, to the exclusion of other parts necessary to the full appreciation of what the reference fairly suggests to one of

ordinary skill. Accordingly, there is no motivation to combine these references, *nor* is there any reasonable expectation of success for the Applicants' claimed invention based on any combination of these references. Even if these references are combined, not one teaches or suggests the dual catalyst system as claimed by Applicants.

Accordingly, for at least these reasons, Applicants respectfully request that this rejection under 35 U.S.C. § 103(a) be removed and these claims be allowed.

CONCLUSION

The foregoing is submitted as a full and complete Response to the final Office Action dated March 4, 2004. For at least the reasons given above, Applicants respectfully submit that Claims 30-39, 46, 47, and 61 define patentable subject matter. Accordingly, Applicants respectfully request allowance of these claims.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Order Account No. 09-0528.

Should the Examiner believe that anything further is necessary in order to place the application in better condition for allowance, the Examiner is respectfully requested to contact Applicants' representative at the telephone number listed below.

Respectfully submitted,



By: David E. Wigley, Ph.D.
Reg. No. 52,362

Womble Carlyle Sandridge & Rice, PLLC
1201 W. Peachtree Street, Suite 3500
Atlanta, Georgia 30309
Direct Telephone: (404) 879-2435
Direct Facsimile: (404) 879-2935
Firm Telephone: (404) 872-7000

Atty. Docket No.: C51757 0020 (51879.0026.9)
Client Ref. No.: 33815US